ErbB3 receptor under experimentally comparable conditions; and (b) activation of ErbB4 receptor tyrosine phosphorylation.

- 40. A host cell expressing the polypeptide of claim 1.
- 41. The host cell of claim 40, wherein the host cell is selected from the group consisting of a mammalian cell, a yeast cell, an insect cell, a plant cell, a lower eukaryote, and a prokaryote.
 - 42. A host cell expressing the polypeptide of claim 4.
- 43. The host cell of claim 42, wherein the host cell is selected from the group consisting of a mammalian cell, a yeast cell, an insect cell, a plant cell, a lower eukaryote, and a prokaryote.
 - 44. A host cell expressing the polypeptide of claim 39.
- 45. The host cell of claim 44, wherein the host cell is selected from the group consisting of a mammalian cell, a yeast cell, an insect cell, a plant cell, a lower eukaryote, and a prokaryote --

